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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/295,957	04/21/1999	K. MANI CHANDY	06618/303001	7789

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EXAMINER

TRUONG, LECHI

ART UNIT PAPER NUMBER

2126

DATE MAILED: 12/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/295,957

Applicant(s)

CHANDY ET AL. 

Examiner

LeChi Truong

Art Unit

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-- **The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 21 April 1999.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over K.Mani Chandy et al (The Infospheres Infrastructure)

As to claim 1, Chandy teaches a plurality of process objects (set of distributed objects, 2,5.3, page 21), each of said process objects (each Java program, p 26, ln 11-17), a program method (the application-layer method (page 26, ln 23to page 27, ln 1-3/ page 27, ln 12-16), at least one inbox (inboxes, page 26, ln 5-17/ page 27, ln 12-16), messages (message, page 26, ln 1-17, page 27 ln 1-23), another process object (Java program to another, page 20, ln 1-17), at least one outbox (outbox, page 26, ln 5-17/ page 27, ln 1-5), a freeze method ( the freeze methods, page 51, ln 29-37), the state ( state , page 51, ln 29-37), persistent storage( persistent file, page 86, ln 19-26), process object ( djinn, page 86, ln 19-26), a frozen djinn( page 86, ln 19-26), does not use operating system( the freeze method is used to save the state into persistent file and it does not use operating system), a thaw method ( the thaw method, page 51, ln 29-37/ page 86, ln 19-26), a ready process object( a frozen djinn can be thawed and executed again, page 89-ln 19-26), a personal network( Distributed systems, Application, page 16, ln 18-31), a communication session( communication among Java program page 25, ln 1-26), one task ( send letter, page 25, ln 1-26), message ( message, page 25, ln 1-26).

Chandy does not explicit teach interconnecting. However, Chandy teaches a “communication persistent objects accessible over the internet”, “ distributed system can be client-server or peer to peer” (page 16, ln 17-33). It would have been obvious to apply the

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teaching of Chandy in order to perform particular tasks and to communicate among a set or distributed objects.

As to claim 2, Chandy teaches one mail daemon object (A mail Daemon, page 26 ln 18-28), controlling the order of message (proper ordering, page 26, ln 18-28), message (page 26, ln 18-28).

As to claim 3, Chandy teaches a summoning response method( calls lamp.summon. lamp. Summon, page 52, ln 24-26), the process object (another djinn, page 52, ln 24-26), the process object (a djinn, page 52, ln 24-26),

As to claim 4, the thaw method is used to restores the frozen process. It could be obvious that when the thaw method is invoked, another process must be summoned in order to resurrect its state from persistent file.

As to claim 5, Chandy teaches a snapshot (checkpoint method, page 86, ln 19-26), a process object (a djinn, page 86, ln 19-28), state (state, page 86, ln 19-28).

***Claim Rejections - 35 USC § 103***

2. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chandy in view of Bamford et al (U.S pat 6,243,702 B1)

As to claim 6, Duggan teaches using snapshot to saves the state of the process object (save its state by the checkpoint method, page 86, ln 19-26).

Duggan does not teach, “ the snapshot variable is a date field”, “ date field value”, “ current date value” and “increments a clock ”. However, Bamford teaches snapshot times (col 4, ln 66-67/ col 8, ln 1-5), transmitted commit time (col 4, ln 35-47), the time indicated by their logical clock (col 4, ln 35-47), a logical clock (col 4, ln35-47).

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It would have been obvious to apply the teaching of Miler to Duggan in order to make distributed object system more realizable and flexible and to reduce the maximum propagation delay period during messages are transferred between process objects.

3. Applicant's arguments filed 4/21/1999 have been considered but are moot in view of the new ground(s) of rejection. Applicant amended claims have added limitations not previously recited, thus, requiring a new grounds of rejection.

**4. Conclusion**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (703) 305 5312. The examiner can normally be reached on 8 - 5 PM.

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Fax phone: AFTER\_FINAL faxes must be signed and sent to: (703) 746-2738, OFFICIAL faxes must be signed and send to: (703) 746-7239, NON OFFICIAL faxes should not be signed, please send to: (703) 746-7240

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305 9000.

LeChi Truong  
December 13, 2002



ALVIN OBERLEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100